

## SEQUENCE LISTING

<110> Newgard, Christopher B.  
Jensen, Mette V.  
Sherry, A. Dean  
Burgess, Shawn C.

<120> LACTATE DEHYDROGENASE AS A NOVEL TARGET AND REAGENT FOR DIABETES THERAPY

<130> 5405-301

<150> US 60/441,476  
<151> 2003-01-21

<160> 27

<170> PatentIn version 3.2

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Leu	Lys	Asp	Gln	Leu	Ile	Val	Asn	Leu	Leu	Lys	Glu	Glu	Gln	Val	Pro
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Asp Val Ile Glu Asp Lys Leu Lys Gly Glu Met Met Asp Leu Gln His  
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Gly Ser Leu Phe Leu Lys Thr Pro Lys Ile Val Ser Ser Lys Asp Tyr  
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Ile Phe Lys Phe Ile Ile Pro Asn Val Val Lys Tyr Ser Pro Gln Cys  
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Lys Leu Leu Ile Val Ser Asn Pro Val Asp Ile Leu Thr Tyr Val Ala  
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Trp Lys Ile Ser Gly Phe Pro Lys Asn Arg Val Ile Gly Ser Gly Cys  
180 185 190

Asn Leu Asp Ser Ala Arg Phe Arg Tyr Leu Met Gly Glu Arg Leu Gly  
195 200 205

Val His Pro Leu Ser Cys His Gly Trp Val Leu Gly Glu His Gly Asp  
210 215 220

Ser Ser Val Pro Val Trp Ser Gly Val Asn Val Ala Gly Val Ser Leu  
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Lys Ser Leu Asn Pro Gln Leu Gly Thr Asp Ala Asp Lys Glu Gln Trp  
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Lys Asp Val His Lys Gln Val Val Asp Ser Ala Tyr Glu Val Ile Lys  
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Leu Lys Gly Tyr Thr Ser Trp Ala Ile Gly Leu Ser Val Ala Asp Leu  
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Ala Glu Ser Ile Met Lys Asn Leu Arg Arg Val His Pro Ile Ser Thr  
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Met Ile Lys Gly Leu Tyr Gly Ile Lys Glu Asp Val Phe Leu Ser Val  
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Pro Cys Ile Leu Gly Gln Asn Gly Ile Ser Asp Val Val Lys Val Thr  
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<212> PRT  
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<210> 6  
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<212> PRT  
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<400> 6

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<210> 7  
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<220>  
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<400> 8

Met Leu Arg Thr Ser Ser Leu Phe Thr Arg Arg Val Gln Pro Ser Leu  
1 5 10 15

Phe Ser Arg Asn Ile Leu Arg Leu Gln Ser Thr  
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Thr

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Ser Phe Tyr Ser Thr  
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<212> DNA
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<212> PRT
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<210> 21  
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<213> Rattus norvegicus

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Leu Phe His Ala Lys Ile Pro Phe Gly Ser Lys Ser Asn  
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<213> Mus musculus

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Gln Asn Lys Ile Thr Val Val Gly Val Gly Ala Val Gly Met Ala Cys  
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Ala Ile Ser Ile Leu Met Lys Asp Leu Ala Asp Glu Leu Ala Leu Val  
65 70 75 80

Asp Val Met Glu Asp Lys Leu Lys Gly Glu Met Met Asp Leu Gln His  
85 90 95

Gly Ser Leu Phe Leu Lys Thr Pro Lys Ile Val Ser Ser Lys Asp Tyr  
100 105 110

Cys Val Thr Ala Asn Ser Lys Leu Val Ile Ile Thr Ala Gly Ala Arg  
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Gln Gln Glu Gly Glu Ser Arg Leu Asn Leu Val Gln Arg Asn Val Asn  
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Lys Leu Leu Ile Val Ser Asn Pro Val Asp Ile Leu Thr Tyr Val Ala  
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Trp Lys Ile Ser Gly Phe Pro Lys Asn Arg Val Ile Gly Ser Gly Cys  
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Asn Leu Asp Ser Ala Arg Phe Arg Tyr Leu Met Gly Glu Arg Leu Gly  
195 200 205

Val His Ala Leu Ser Cys His Gly Trp Val Leu Gly Glu His Gly Asp  
210 215 220

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				20				25					30		

Leu	Lys	Asp	Gln	Leu	Ile	Tyr	Asn	Leu	Leu	Lys	Glu	Glu	Gln	Thr	Pro
	35						40						45		

Gln Asn Lys Ile Thr Val Val Gly Val Gly Ala Val Gly Met Ala Cys

50

55

60

Ala Ile Ser Ile Leu Met Lys Asp Leu Ala Asp Glu Leu Ala Leu Val  
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Asp Val Ile Glu Asp Lys Leu Lys Gly Glu Met Met Asp Leu Gln His  
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Gly Ser Leu Phe Leu Arg Thr Pro Lys Ile Val Ser Gly Lys Asp Tyr  
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Asn Val Thr Ala Asn Ser Lys Leu Val Ile Ile Thr Ala Gly Ala Arg  
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Gln Gln Glu Gly Glu Ser Arg Leu Asn Leu Val Gln Arg Asn Val Asn  
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Ile Phe Lys Phe Ile Ile Pro Asn Val Val Lys Tyr Ser Pro Asn Cys  
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Lys Leu Leu Ile Val Ser Asn Pro Val Asp Ile Leu Thr Tyr Val Ala  
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Trp Lys Ile Ser Gly Phe Pro Lys Asn Arg Val Ile Gly Ser Gly Cys  
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Asn Leu Asp Ser Ala Arg Phe Arg Tyr Leu Met Gly Glu Arg Leu Gly  
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Val His Pro Leu Ser Cys His Gly Trp Val Leu Gly Glu His Gly Asp  
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Ser Ser Val Pro Val Trp Ser Gly Met Asn Val Ala Gly Val Ser Leu  
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Lys Thr Leu His Pro Asp Leu Gly Thr Asp Lys Asp Lys Glu Gln Trp  
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Lys Glu Val His Lys Gln Val Val Glu Ser Ala Tyr Glu Val Ile Lys  
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Leu Lys Gly Tyr Thr Ser Trp Ala Ile Gly Leu Ser Val Ala Asp Leu  
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Ala Glu Ser Ile Met Lys Asn Leu Arg Arg Val His Pro Val Ser Thr  
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Met Ile Lys Gly Leu Tyr Gly Ile Lys Asp Asp Val Phe Leu Ser Val  
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Pro Cys Ile Leu Gly Gln Asn Gly Ile Ser Asp Leu Val Lys Val Thr  
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Leu Thr Ser Glu Glu Glu Ala Arg Leu Lys Lys Ser Ala Asp Thr Leu  
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Trp Gly Ile Gln Lys Glu Leu Gln Phe  
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